

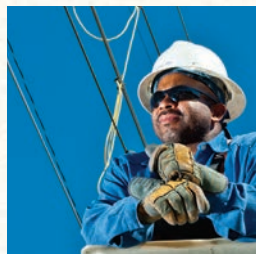
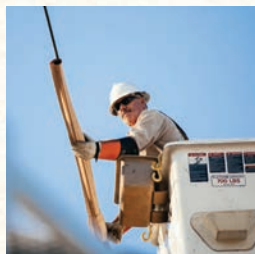
REGENERATION

2015 ELECTRICITIES ANNUAL REPORT



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Message from the Chair and CEO



The audit reports and financial information regarding North Carolina Eastern Municipal Power Agency, North Carolina Municipal Power Agency Number 1 and ElectriCities of North Carolina, Inc. are included in this report. Each agency is a separate and distinct legal entity, and the inclusion of such information regarding the entities should not be construed to indicate any relationship between them.

I have spent much of the past year traveling across North Carolina, meeting with elected officials, city managers and board members to discuss the future of public power. At every stop from the mountains to the coast, I hear a common refrain about the issues facing our industry.

Our workforce is growing older, with 55 percent of our linemen and utility directors expected to retire within the next 10 years. Much of our infrastructure and technology is in the same boat, in desperate need of updating and modernizing.

As we prepare for the next 50 years of public power, it is a time of renewal and regeneration.


We must identify and train a new generation of utility workers. We must invest in new infrastructure and embrace new technologies that allow us to operate more efficiently and effectively. And we must develop new services that deliver meaningful value to public power communities.

ElectriCities is currently in the midst of a comprehensive strategic planning process that will guide our organization for the next several years. We went through a similar process when I first arrived in 2009 that served us well. While our fundamental goal remains the same – to deliver safe, reliable power at competitive prices – it is imperative that we continue to look for fresh, innovative strategies that will allow us to proactively address the challenges that lie ahead.

We made significant progress toward our goals in 2015, especially with regard to achieving competitive wholesale electric rates. The \$1.25 billion sale of NCEMPA's electric generation assets eliminated 75 percent of its debt, reduced wholesale electric rates by 17 percent, and kept more money in our communities. In addition, we completed a debt restructuring for NCMPA¹ that eliminated a planned rate increase and instead lowered wholesale rates by six percent.

We must remain vigilant when it comes to controlling costs, while also expanding our services to help members better address workforce issues, evaluate advanced technologies and encourage new growth. As we look to the years ahead, we will identify additional opportunities to leverage our collective strength and bring value to public power communities.

Lastly, I would like to extend a warm welcome to Waynesville, the newest member of ElectriCities. Waynesville is a small town nestled in the Great Smoky Mountains that serves 3,000 residential and commercial customers. The town boasts some of the most magnificent mountain views of the Blue Ridge Parkway. It's definitely worth a visit.

D. Ronald Hovis 

D. Ronald Hovis
Chair

Roy L. Jones
Chief Executive Officer



Board of Directors



Mr. D. Ronald Hovis
Chair, Cherryville



Mr. Grant W. Goings
Vice Chair, Wilson



Mr. Latimer B. Alexander IV
Secretary, High Point



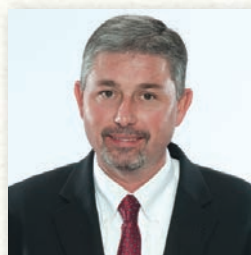
Mr. Steven K. Blanchard
Fayetteville PWC



Mr. Dan R. Brown
Morganton



Mayor J. Newell Clark
Lexington



Mr. John P. Craft
La Grange



Mr. James A. Gallagher
Gastonia



Dr. Virginia D. Hardy PhD
Greenville Utilities Commission



Mayor Barry C. Hayes
Granite Falls



Mayor Vivian A. Jones
Wake Forest



Mr. Adam G. Mitchell
Fuquay-Varina



Mr. Robert A. Swinson IV
Kinston



Mr. Nick L. Hendricks
Kings Mountain



Mr. Strib Boynton
NCMPA1 Chair, High Point



Mr. Richard N. Hicks
NCEMPA Chair, Farmville

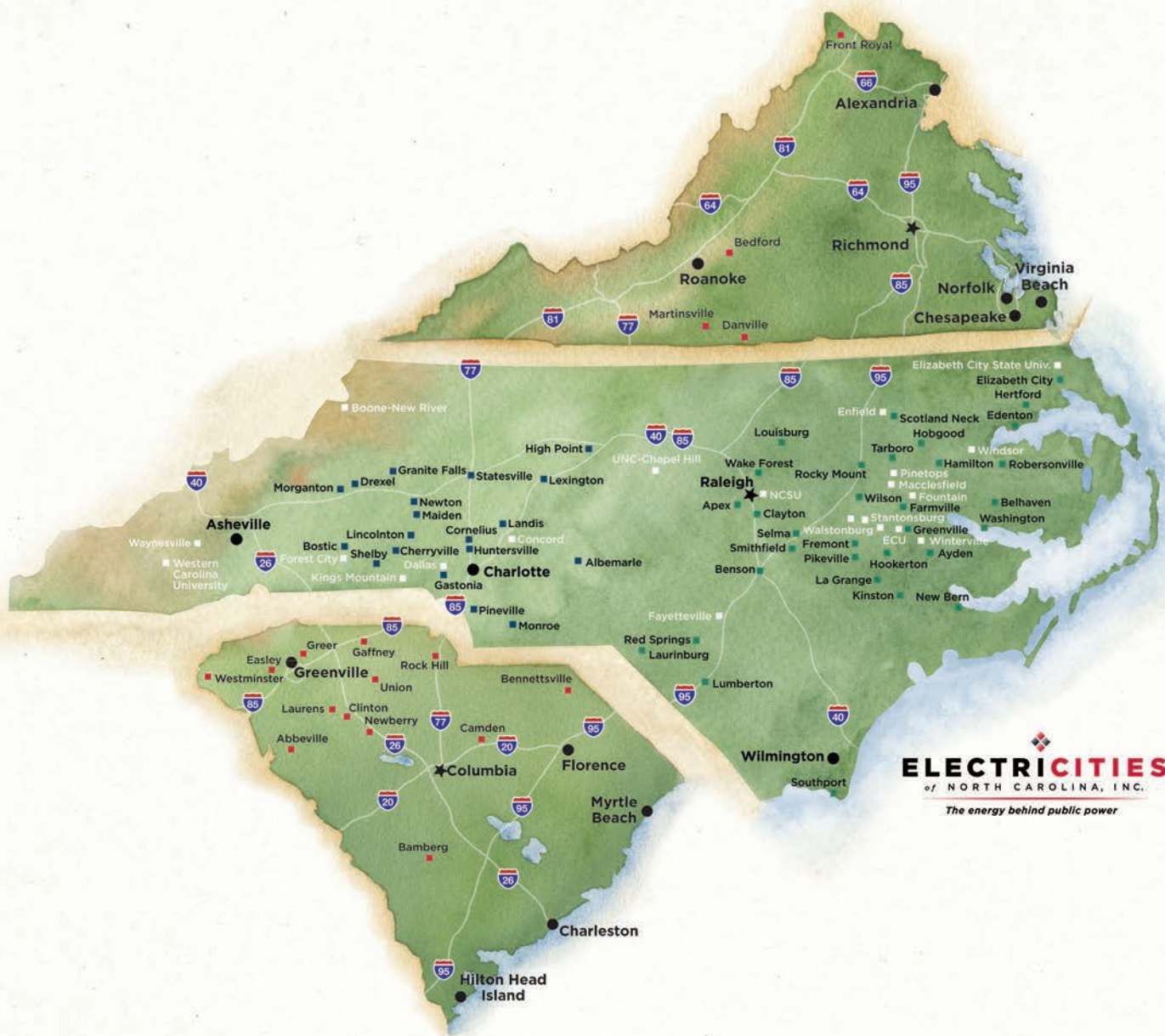
Leadership Team

Roy L. Jones
Chief Executive Officer

F. Timothy Tunis
Chief Financial Officer

David M. Barnes
Chief Legal & Ethics Officer

Member Community Map





NEWTON is Poised for **GROWTH**

City of Newton Electric Utility Division Manager Doug Wesson and Public Works and Utilities Director Dusty Wentz at the Jacobs Fork Delivery substation.



The road to Newton is about to become very popular.

The expansion of Highway 16 to four lanes between Charlotte and Newton, one of the last undeveloped corridors in the region, will pave the way for significant growth in this charming Catawba County city.

Newton is already well known for its excellent school system – it boasts the best high school graduation rate in North Carolina – and cultural amenities such as the 1924 Courthouse Square and the Old Post Office Playhouse.

City Manager Todd Clark says the city is ready for growth. It has been planning ahead and will soon embark on a major streetscape project to enhance the downtown business district.

As part of its infrastructure improvements, the city has installed wireless metering technology for all electric and water customers. The new technology will improve reliability and enhance customer service – two hallmarks of all public power communities.

Newton is Poised for Growth



Utility workers at the Jacobs Fork Delivery substation in Newton, N.C. and installing a new residential AMI system that collects multiple remote reads per day. This new smart meter allows for increased billing accuracy and improved customer service.

NCMPA1 Leadership

Mr. Strib Boynton
Chair
High Point

Mr. Wayne Dellinger
Vice Chair
Newton

Mr. J. Richard Howell Jr.
Secretary-Treasurer
Shelby

Board of Commissioners and Alternate Commissioners as of December 31, 2015

Alternate Commissioners' names appear in smaller type

Albemarle

Mr. Michael J. Ferris
Ms. Martha Sue Hall
Mayor Ronnie Michael

Bostic

Commissioner Vacant
First Alternate Vacant

Cherryville

Mayor H. L. Beam III
Mr. Brian Dalton
Mr. Ben Blackburn

Cornelius

Mr. Thurman Ross Jr.
Mr. David Gilroy
Mr. Anthony Roberts

Drexel

Ms. Sherri Bradshaw
Mr. Carrol Franklin

Gastonia

Mr. Edward C. Munn
Mr. J. Philip Bombardier
Mr. Michael Peoples

Granite Falls

Mayor Barry C. Hayes
Mr. Jerry T. Church

High Point

Mr. Strib Boynton
Mayor William S. Bencini Jr.
Mr. J. William McGuinn Jr.

Huntersville

Mr. Gregory H. Ferguson

Landis

Commissioner Vacant
Mr. D. Reed Linn

Lexington

Mayor Newell Clark
Mr. L. Wayne Alley
Mr. Jim Myers

Lincolnton

Mr. Stephen H. Peeler
Mayor Ed Hatley
Mr. Jeff B. Emory

Maiden

Mr. Billy R. Price
Mr. Marcus C. Midgett
Mr. William Todd Herms

Monroe

Mr. Donald D. Mitchell
Mr. Edward L. Faison
Mr. Freddie B. Gordon

Morganton

Mr. Dan Brown
Mr. Brooks Kirby
Ms. Sally W. Sandy

Newton

Mr. Todd Clark
Mr. Wayne Dellinger
Mr. Douglas S. Wesson

Pineville

Mayor John Edwards
Mr. Haynes Brigman

Shelby

Mayor O. Stanhope Anthony III
Mr. J. Richard Howell Jr.
Ms. Julie R. McMurry

Statesville

Mayor Constantine H. Kutteh
Mr. F. Kent Houpe
Mr. Larry Pressley



NCMPA1 Participants

City	Revenues (000s)	Customers	Ownership %
Albemarle	\$ 34,164	11,887	7.6043
Bostic	434	203	0.0869
Cherryville	5,944	2,440	1.5788
Cornelius	5,355	3,239	0.3621
Drexel	2,381	1,203	0.5070
Gastonia	73,103	26,891	17.1205
Granite Falls	6,080	2,396	0.9125
High Point	126,370	40,123	18.9600
Huntersville	14,113	4,836	0.6228
Landis	6,344	2,865	1.1298
Lexington	53,181	18,474	12.9345
Lincolnton	6,676	2,657	1.6078
Maiden	6,540	1,171	1.2891
Monroe	58,846	10,557	10.0377
Morganton	33,823	8,168	6.7352
Newton	14,729	4,504	2.1147
Pineville	11,936	2,994	0.5359
Shelby	19,833	8,077	5.9965
Statesville	46,703	13,084	9.8639

North Carolina
Municipal Power Agency
Number 1 was formed
in 1976 and includes
19 Participants in the
Piedmont and western
part of North Carolina.

Source: 2014 EIA-861 Data

2015 NCMPA1 Operational Performance

NCMPA1 Energy and Demand*

Years ending on December 31	2015	2014	All Time Peak
Energy (MWh)	5,265,555	5,239,697	5,320,784 (2010)
Non-coincident Peak (MW)	1,075 (June)	1,029 (July)	1,140 (August 2007)
On-Peak Demand (MW)	1,053 (June)	1,000 (July)	1,110 (August 2007)
Average On-Peak Capacity Factor	69%	70%	

* Billing Point Level including SEPA and Distributed Generation

NCMPA1 Plant Information

Unit	Capacity Factor% ⁽¹⁾	Availability Factor% ⁽²⁾
Catawba Unit 1	93.0	92.6
Catawba Unit 2	90.3	90.1
McGuire Unit 1	102.1	98.2
McGuire Unit 2	92.1	92.2

Note: The above numbers are reported by Duke Energy to the Nuclear Regulatory Commission in the Unit's December 2015 Operating Data Report.

(1) The ratio of the average operating output of a power generating unit to the capacity rating during a specified period of time. Capacity factors include both planned and unplanned outages.

(2) The time a power generating unit is capable of producing energy, regardless of its capacity level. Availability factors include both planned and unplanned outages.

Nuclear Refueling

- » Catawba Unit 1's last refueling outage began on November 21, 2015, and ended on December 18, 2015
- » Catawba Unit 2 began a refueling outage on February 28, 2015, and ended on April 5, 2015
- » McGuire Unit 1 did not have a refueling outage in 2015.
- » McGuire Unit 2 began a refueling outage on September 12, 2015, and ended on October 9, 2015

new operating licenses for the McGuire and Catawba Units on December 5, 2003. The operating licenses will expire as follows:

- » McGuire Unit 1 • June 2041
- » McGuire Unit 2 • March 2043
- » Catawba Unit 1 • December 2043
- » Catawba Unit 2 • December 2043

Security

The NRC has established a number of regulations regarding security and safeguard measures at nuclear facilities in the United States, including the Catawba Nuclear Plant (Plant or Station). These security orders have required the nuclear power plant licensees to implement

Nuclear Plant Operating Licenses Expiration

The Nuclear Regulatory Commission issued

additional measures addressing a wide range of security issues, such as: site access authorization, site security plans, nuclear facility security force personnel and the transport and control of radioactive material.

Since the September 11, 2001 terrorist attacks on the World Trade Center and Pentagon, there has been concern among the public, government agencies and media that nuclear stations could be the target of terrorist activity. Within a few hours of the September 11 events, the seven nuclear stations operated by DEC went to a heightened security status and have remained there. The nuclear stations continuously review and evaluate security procedures and have implemented further enhancements based on these evaluations, input from the NRC and recommendations of security experts.

Nuclear power plants are among the most hardened and secure facilities in the world today. They were designed and constructed to withstand tremendous physical forces such as earthquakes and tornados. They have redundant safety systems and multiple barriers designed to protect the public in even highly unlikely emergency scenarios. Nuclear reactor buildings are extremely robust structures, many times stronger than typical office buildings and skyscrapers. Nuclear plants also have numerous redundant safety systems and physical barriers to prevent the release of radioactive materials and to protect the public. Nuclear stations have numerous security features, both visible and unseen. These include armed, well-trained security forces; physical intrusion detection systems and robust barriers consisting of concrete structures and razor wire fences; extensive vehicle barrier systems; and advanced

surveillance, detection and assessment equipment that monitors areas surrounding the Station.

Station access is tightly controlled by skilled security officers and multiple sophisticated electronic devices. Nuclear employees must pass stringent background investigations, psychological evaluations and drug and alcohol screenings. Employees and contractors are also subject to continual monitoring and screening. Beyond all these protections, there are detailed plans for handling emergencies from all causes. These are closely coordinated and practiced with county, state and federal officials. Nuclear station neighbors receive emergency planning information annually.

NCMPA1 staff continues to review the additional capital requirements, as well as operation and maintenance expenditures needed at Catawba, including those measures required by the NRC. Under contractual arrangements with NCMPA1, all security issues are handled by DEC. As the operator of a nuclear plant, DEC has the responsibility to ensure the plant is operated safely and DEC's nuclear plants have safety records among the best in the nation.

Power Supply Overview

Supplemental Agreements

NCMPA1 continues to purchase power through bilateral agreements with other utilities and merchant generators for its energy and capacity requirements above its Catawba Project Entitlements.

In 2015, these additional needs came from the following suppliers:

- » NCMPA1 purchased 150 MW of capacity from Southern Power Company and sourced out of Rowan County, N.C.
- » NCMPA1 purchased 183 MW of capacity from Southern Power Company and sourced out of Cleveland County, N.C.
- » NCMPA1 has a 50 MW Instantaneous Energy Services agreement with Duke Energy that is reviewed yearly
- » NCMPA1 has the right to schedule and receive 60 MW of power from the Southeastern Power Administration

NCMPA1 has contracts to ensure reliable future power supply requirements with the following suppliers:

- » NCMPA1 purchased 150 MW of capacity through the year 2030, from Southern Power Company and sourced out of Rowan County, N.C.
- » NCMPA1 purchased 183 MW of capacity through the year 2031, from Southern Power Company and sourced out of Cleveland County, N.C.

NCMPA1 has a contract with The Energy Authority (TEA) to manage all intra-day energy transactions. The current three-year agreement with TEA ends on Dec. 31, 2016. NCMPA1 performs all its day-ahead, short-, mid-, and long-term marketing through internal resources.

Distributed Generation

NCMPA1 owns 34 diesel generators located on city electric systems. These units, totaling 65 MW, are operated remotely on short notice during periods of high demand and high market prices. Also under remote control operation are city-owned and customer-owned generators

totaling 91 MW. This combination of 156 MW of remotely operated, fast-start units provides great operational flexibility for NCMPA1's power supply program.

NCMPA1 has been successful in placing under contract an additional 18 MW of generation owned by cities and retail customers for local operation under NCMPA1's power supply program. These operations are coordinated through NCMPA1's operations center, maintaining availability during times of peak demand and high market prices.

NCMPA1 will continue to evaluate additional distributed generation opportunities to improve power supply flexibility and reliability.

Monroe Generating Station

NCMPA1 owns two gas turbine generators in Monroe that provide 24 MW of peaking and reserve capacity. These two generators that were installed in 2009 can operate on either natural gas or fuel oil. Natural gas is obtained from the City of Monroe's gas system and the station is connected to the City's electric system. Just as our diesel Distributed Generation, these gas turbine generators can be started on short notice during periods of high demand and high market prices.

Load Management

NCMPA1's load management operations provide signals to customers that allow them to reduce load during peak billing times. The operation of various demand side management programs results in a total peak reduction of approximately 38 MW each month. The load management strategy this year continued to focus on forecasting accuracy in an effort to reduce the number of load management operation hours. NCMPA1 operated load

management an average of six hours per month during 2015.

Power Supply Management (Surplus Sales)

NCMPA1 performs its own power supply resource scheduling and power marketing in order to provide the cities with reliable power at the lowest cost. All day-ahead, short-, mid- and long-term transactions and resource optimization are managed internally, while intra-day activities are managed through an agency agreement with TEA.

NCMPA1 optimizes its supply portfolio by:

- » Economically scheduling and dispatching power supply resources to meet the needs of the Participants, including the nuclear plants, supplemental resources, distributed generation and transmission agreements
- » Balancing resources and obligations every four seconds with its Instantaneous Energy Services agreement
- » Selling surplus energy in the wholesale power markets at the highest price
- » Buying energy in the wholesale power markets when cheaper than its supplemental resources
- » Managing the associated risks including market price volatility, unit and transmission outages and counterparty credit

In addition to scheduling and dispatching resources to meet the energy requirements of the Participants, NCMPA1 executed

over 3,600 transactions related to surplus sales activities in 2015. These transactions resulted in revenues in excess of \$52 million and in benefits of \$27 million.

NCMPA1 has a Risk Management Committee consisting of executive staff that provides oversight and direction to the power supply program. The ElectriCities Board of Directors adopted the NCMPA1 Risk Management Policy and the Risk Management Committee developed internal Risk Management Guidelines to control all transactions related to power supply activities.

Transmission Agreements

NCMPA1 purchases transmission for its native load requirements from Duke Energy Transmission in accordance with Duke's Open Access Transmission Tariff. In addition, NCMPA1 purchases transmission from Duke and other regional transmission providers for the delivery of surplus energy to the wholesale market. All the required agreements have been filed and approved by the Federal Energy Regulatory Commission (FERC).

Wholesale Rates

The NCMPA1 Wholesale Rate Plan is reviewed at least annually by the NCMPA1 Rate Committee and approved by the Boards. The Rate Committee met in March 2015 and recommended a financing plan that included capital additions financing, refunding for savings and a partial restructuring of outstanding debt. The financing plan was approved by the Boards and resulted in a 6 percent basic wholesale rate decrease effective July 1, 2015.

Retail Rate Assistance and Billing Services

In 2015, NCMPA1 staff completed 16 retail rate studies for members. Rate studies use 12 months of a Participant's billing data and calculate at customer detail level projected revenue using updated load forecast and projected retail rates. A new program offering Cost of Service Studies was also initiated and three NCMPA1 municipals have committed and will receive results in 2016.

Innovative rate design assistance for new retail customers of members was provided in 20 instances. This support was also provided for existing customers interested in exploring other rate options or expansion in five instances. As needed, rate assistance was also provided regarding tracking revenue and expenses throughout the year.

NCMPA1 continues to provide retail billing services to the cities through its Customer Database and Billing System. This system allows the cities to offer innovative retail rates that could not be accommodated by their internal billing systems. City staff members and customers utilize customer usage data, stored in the database and accessible through a secure extranet site, in making cost-saving operational recommendations and decisions. Fifteen Participants utilize this monthly assistance for approximately 309 accounts.

Federal Regulations

Spent Nuclear Fuel Disposal

With regard to spent nuclear fuel, NCMPA1 has responsibility for back-end costs or liabilities associated with its ownership interest in nuclear fuel burned at the Catawba Nuclear

Station. NCMPA1 has provided an allowance for the estimated costs of the final disposal of such spent nuclear fuel.

The Department of Energy has been collecting a 0.1-cent charge from utilities and customers for each nuclear-generated kilowatt-hour of electricity. This money, which has been contributed by utility companies and their customers around the country each month to help develop Yucca Mountain, has fed the Nuclear Waste Fund for the last three decades.

Collectively, nuclear operators have paid more than \$27 billion over the years to help cover the costs of long-term storage and disposal of nuclear waste from the nation's 100 commercial nuclear reactors. With interest, the fund is approaching an estimated \$30 billion.

The DOE failed to begin accepting spent nuclear fuel on January 31, 1998, as specified by the Nuclear Waste Policy Act and the contract with DOE. In 1998, Duke filed a claim with the U.S. Court of Claims against DOE related to DOE's failure to accept commercial spent nuclear fuel by the required date. On March 5, 2007, Duke and the U.S. Department of Justice (DOJ) reached a settlement resolving Duke's spent nuclear fuel litigation against DOE. The agreement provided for an initial payment to Duke of approximately \$56 million for certain storage costs incurred through July 31, 2005, with additional amounts reimbursed annually for subsequently incurred storage costs. NCMPA1 and the other joint owners of Catawba have received and will continue to receive an allocated share of these reimbursements.

Recently a coalition of utility companies challenged that the annual fees they are charged to fund the Nuclear Waste Fund are excessive, in light of the zero amount of effort

being put into the Yucca Mountain depository. On Nov. 19, 2013, a federal appeals court ruled that operators of the nation's nuclear power plants cannot be forced to pay the Department of Energy an annual fee for disposal of their radioactive waste, because no disposal site has been selected. On May 16, 2014, DOE suspended the collection of the 0.1-cent charge from utilities and customers for each nuclear-generated kilowatt-hour of electricity.

Climate Change Issues

Congress has refrained from enacting legislation to reduce emissions of greenhouse gases, but this does not mean electric utilities are not subject to regulation that could require additional capital outlays.

In place of Congressional action, electric utilities are increasingly subject to more stringent regulatory environmental compliance requirements emanating from the United States Environmental Protection Agency (EPA). The EPA has finalized rules to govern the regulation of greenhouse gas (GHG) emissions from new, modified and existing electric utility fossil-fueled power plants.

With respect to existing electric generating units, the EPA announced the Clean Power Plan on August 3, 2015. The Clean Power Plan provides a regulatory framework that is intended to reduce carbon dioxide emissions from power plants 32 percent below 2005 levels by 2030. However, on February 9, 2016, the United States Supreme Court stayed implementation of the Clean Power Plan pending judicial review. The Court's decision was not on the merits of the rule.

Because the ultimate outcome of the judicial review of the Clean Power Plan is uncertain, Power Agency staff cannot predict what effects

the Clean Power Plan may have on the business operations and financial condition of the Power Agency or the Participants at this time.

Reciprocating Internal Combustion Engines

The EPA rules establishing national emissions standards for hazardous air pollutants for existing compression ignition reciprocating internal combustion engines (RICE) went into effect May 3, 2014. These rules did affect some of NCMPA1-owned distributed generation, as well as Participant-owned distributed generation. NCMPA1 did retrofit their affected units with emissions control equipment to meet the new standards.

North American Electric Reliability Corporation Compliance

The Energy Policy Act of 2005 directed FERC to develop mandatory electric reliability standards and a process for enforcing those standards. Subsequently, FERC Order 672 certified the North American Electric Reliability Corporation (NERC) as the Electric Reliability Organization (ERO) responsible for the development and enforcement of the standards. SERC Reliability Corporation (SERC) is the NERC regional entity that oversees compliance with the standards in the southeastern region of the United States. Order 672 also directed all owners, operators and users of the bulk power system to register with the ERO and be subject to the reliability standards. As a result, on June 18, 2007, NERC Reliability Standards became mandatory for the municipal electric systems of some cities that are Participants of NCMPA1.

NCMPA1, its Participants and other entities that are subject to the reliability standards, delegated their compliance

responsibilities to ElectriCities. ElectriCities is registered with NERC as a Joint Registration Organization (JRO) on behalf of NCMPA1's Participants and other members of the JRO that would otherwise be required to register with NERC individually, based on NERC's criteria for registration, in the functional categories of Resource Planner and Distribution Provider. ElectriCities staff manages an Internal Reliability Compliance Program (IRCP) to ensure that the members of the JRO remain in compliance with all applicable NERC and SERC reliability standards and any additional requirements. As members of the JRO, the applicable NCMPA1 Participants have agreed to cooperate fully with ElectriCities in the implementation of the IRCP and to perform any associated tasks to ensure continued compliance with the reliability standards.

Cyber Security

Cyber security threats to the electric sector are garnering increased attention as foreign operatives and others seek ways to disrupt the economy and the nation. NCMPA1, both directly and through its contracted plant operators, participates in and remains in compliance with cyber security standards developed by NERC. NERC is the ERO certified by FERC to establish and enforce reliability standards for the bulk power system. FERC monitors and approves all NERC standards and has the authority to direct the NERC to develop new standards should current standards be deficient.

On January 13, 2015, President Obama signed an Executive Order designed to increase the US Government's communication among and between the government and

owners of critical infrastructure assets. This Executive Order builds on Order 13636, signed in 2013, which was intended to increase the level of preparation for cyber threats and to facilitate industry coordination among the critical infrastructure sectors. The electric sector is the only sector that currently has mandatory and enforceable federal cyber security standards already in place. Nonetheless, the administrative actions to direct additional information sharing between the US Government and the electric sector are considered beneficial and should serve to enhance current actions. Congress is similarly interested in facilitating increased secure communications regarding threats to the electric grid while not imposing burdensome, redundant regulations on the industry.

North Carolina State Regulations

Renewable Energy Portfolio Standard

Under North Carolina's Renewable Energy and Energy Efficiency Portfolio Standard (REPS), NCMPA1 member cities must obtain up to 10 percent of their energy through renewable energy or energy efficiency resources by 2018. NCMPA1 is committed to meeting the REPS requirements in a least-cost manner, while maximizing the benefits to its member cities. Compliance with REPS can be accomplished through any combination of the following:

- » Generate bundled renewable energy using renewable facilities
- » Buy bundled renewable energy from renewable facilities
- » Buy Renewable Energy Certificates (RECs)
- » Reduce energy consumption via demand-side management or energy efficiency

- » Buy all or part of energy requirements through a wholesale contract with a supplier that complies with REPS
- » Meet the cost cap by incurring incremental costs for some or all of the above

In 2012 the general REPS requirement began, and is escalated as follows:

- » 2012 — 3 percent of prior year retail sales
- » 2015 — 6 percent of prior year retail sales
- » 2018 and beyond — 10 percent of prior year retail sales

Along with energy derived from unspecified renewable resources (General Requirement), the 2015 requirements included three “carve-out” requirements: energy derived from solar facilities, biomass energy derived from swine waste and biomass energy derived from poultry waste. NCMPA1 met its solar requirement, poultry requirement and the General Requirement in 2015. However, the North Carolina Utilities Commission (NCUC) delayed the 2015 swine requirement until 2016 for all North Carolina utilities, including NCMPA1. The swine requirement was delayed because there were not enough swine biomass generators online in North Carolina to meet these statewide requirements.

To meet its future REPS requirements, NCMPA1 has entered into several REC purchase agreements, including the purchase of:

- » The output of a 1 MW solar photovoltaic generation plant in Shelby, N.C.
- » In-state and out-of-state solar photovoltaic RECs
- » In-state and out-of-state wood waste

biomass RECs

- » In-state and out-of-state poultry waste biomass RECs
- » In-state and out-of-state swine waste biomass RECs
- » Out-of-state wind RECs

Through these REC purchases, NCMPA1 has secured its supply of RECs to meet the REPS requirements for the General Requirement, solar requirement and poultry requirement through 2017. NCMPA1, along with the other North Carolina electric utilities, continues to solicit proposals from proposed swine waste biomass electric generating facilities to meet the swine waste requirement.

In addition to the activities listed above, NCMPA1 has been actively developing and implementing energy efficiency programs that may be used for REPS compliance. During 2015, NCMPA1 continued to promote these energy efficiency programs. These energy efficiency programs include:

- » Home Energy Audits with the distribution of Energy Efficiency Kits that include compact fluorescent lightbulbs
- » Commercial Lighting Rebate Program
- » High Efficiency Heat Pump Rebate Program

NCMPA1 has been active at the NCUC, helping to shape the REPS program through filings and participation in working groups.

Emissions

NCMPA1 is proud to have a very small emissions profile. The NCMPA1 energy supply portfolio consists of 95% nuclear power, and the remainder a combination of purchased power, natural gas combustion turbines, distributed

diesel generators and renewable energy. This portfolio results in a carbon footprint of 0.05 lbs/KWh, much lower than the national average of about 1 lb/KWh. Most NCMPA1 members also receive Federal hydroelectric power from the Southeastern Power Administration (SEPA), which is an emissions-free resource. Given this attractive emissions profile and its 6 percent REPS requirement, NCMPA1 and its members are considered to be carbon neutral and have very little exposure to any potential limitations on emissions of greenhouse gases (GHGs).

NCMPA1 Investment and Outstanding Debt Overview

Investment Portfolio Statistics

Earnings	Income	Rate of Return
2015	\$ 16,960,000	2.21%
2014	16,077,000	2.07%

Market Value as of 12/31

		Value	Average Maturity (yrs.)
2015	\$	881,411,000	2.5
2014		918,913,250	2.9

Debt Outstanding as of 12/31

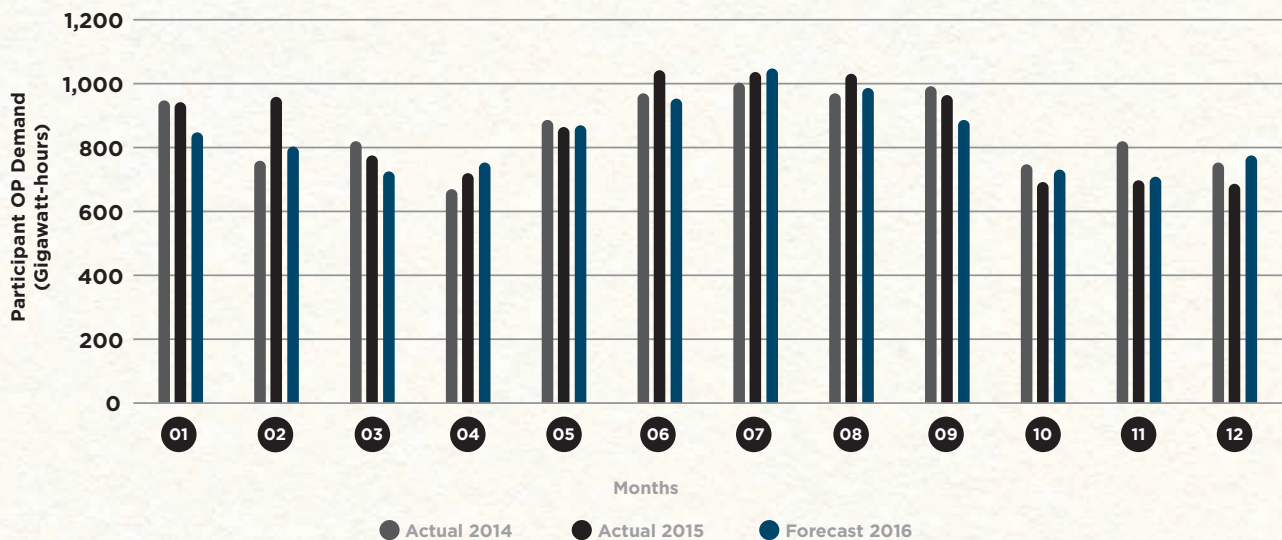
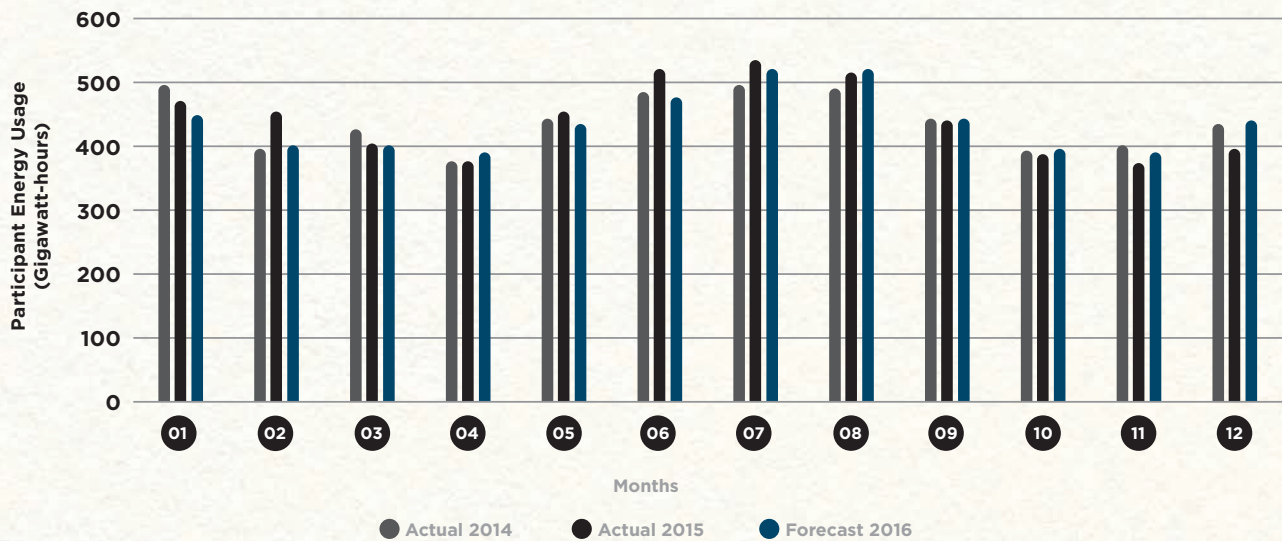
Fixed Rate Bonds	Balance	Weighted Avg. Interest Cost
2015	\$ 1,173,205,000	4.9%
2014	1,314,455,000	4.7%

Bond Reconciliation

Bonds Outstanding 12/31/14	\$1,314,455,000
Matured 1/2/15	117,720,000
Tendered 7/23/15	190,520,000
Refunded 7/23/15	313,075,000
Issued 7/23/15	480,065,000
Bonds Outstanding 12/31/15	\$1,173,205,000

Bonds Outstanding as of 12/31/15

Series	Par Amount
Series 2008 A	\$ 92,220,000
Series 2008 C	445,000
Series 2009 A	134,330,000
Series 2009 B	9,200,000
Series 2009 C	6,665,000
Series 2009 D	65,525,000
Series 2010 A	51,460,000
Series 2010 B	36,905,000
Series 2012 A	160,335,000
Series 2012 B	94,870,000
Series 2012 C	41,185,000
Series 2015 A	304,710,000
Series 2015 B	41,265,000
Series 2015 C	92,550,000
Series 2015 D	23,930,000
Series 2015 E	17,610,000
Total	\$ 1,173,205,000



Graphs: Billing point including SEPA; forecast year 2015 is from the December 2014 Winter Load Forecast

THE RENAISSANCE *of* Wake Forest



Town of Wake Forest Manager Kip Padgett with Deputy Town Manager Roe O'Donnell at the John B. Cole substation.



Wake Forest is one of many towns in eastern North Carolina that is exploring a reduction in electric rates as a result of the NCEMPA asset sale. The town has a long-term rate plan focused on maintaining stable rates that will keep Wake Forest competitive.

Lower electric rates is icing on the cake for a town enjoying a renaissance of sorts.

Wake Forest has tripled in size in the past 15 years and its efforts to revitalize downtown are paying dividends. A \$25 million initiative, including streetscape improvements and the construction of a new town hall and arts center, has energized private development.

“People are taking notice of the investment we’ve made,” said Town Manager Kip Padgett.

The town is also investing in its electric infrastructure. It used its own utility employees to completely rebuild the John B. Cole substation in 2015, and it has begun installing a second generation of smart meters that improve outage management and offer more versatility to customers.

The Renaissance of Wake Forest



Mayor Vivian A. Jones standing in the beautifully revitalized historic downtown of Wake Forest at the White Street Brewing Co. Lineman working at the John B. Cole substation.

NCEMPA Leadership

Mr. Richard N. Hicks
Chair
Farmville

Mr. Matthew R. Zapp
Vice Chair
Benson

Mr. Donald I. Evans
Secretary-Treasurer
Wilson

Board of Commissioners and Alternate Commissioners as of December 31, 2015

Alternate Commissioners' names appear in smaller type

Apex
Commissioner Vacant
Mr. Andrew

Ayden
Mayor Stephen W. Tripp
Ms. Alicia Simpson

Belhaven
Mayor Adam W. O'Neal
Mr. Woody Jarvis

Benson
Mr. Matthew R. Zapp
Mr. Braston A. Newton

Clayton
Mr. Robert J. Ahlert
Mayor Jody L. McLeod

Edenton
Ms. Anne-Marie Knighton
Mr. Glenn Andersen

Elizabeth City
Mr. Richard Olson
Mayor Joseph W. Peel

Farmville
Mr. Richard N. Hicks
Mr. David P. Hodgkins
Mr. Brian Shackelford

Fremont
Mr. Leon V. Mooring
Ms. Barbara Aycock

**Greenville Utilities
Commission**
Mr. Anthony C. Cannon
Mr. John Franklin Minges III

Hamilton
Mr. Herbert L. Everett
Mayor Donald G. Matthews III

Hertford
Mr. Brandon Shoaf
Mayor Horace C. Reid Jr.

Hobgood
Mr. Danny Ellis
Ms. Sharon Hackney

Hookerton
Mayor Robert E. Taylor
Ms. April H. Baker

Kinston
Commissioner Vacant
Mr. Tony Sears
Ms. Rhonda F. Barwick

La Grange
Mr. John P. Craft
Mr. Larry Gladney
Mr. Bobby Wooten

Laurinburg
Mr. Charles D. Nichols III
Mr. Curtis B. Leak

Louisburg
Mr. Ray Patterson
Mr. Tony L. King
Mr. Jonathan Franklin

Lumberton
Commissioner Vacant
Mr. Leon Maynor
Mr. T. Wayne Horne

New Bern
Mr. Jonathan Rynne
Mr. Bernard W. White
Ms. Patricia Schaible

Pikeville
Mr. Michael D. Hunt
Mr. Robert Hooks

Red Springs
Mayor John M. McNeill
Mr. David Shook
Mr. Edward Henderson

Robersonville
Ms. Elizabeth W. Jenkins
Mr. Stacy Scott
Mr. John David Jenkins

Rocky Mount
Mr. Andre D. Knight
Mr. Charles W. Penny
Mr. Richard H. Worsinger

Scotland Neck
Commissioner Vacant
Ms. Nancy Jackson

Selma
Mr. Jonathan R. Barlow
Mayor Cheryl L. Oliver
Mr. Donald Baker

Smithfield
Commissioner Vacant
Mr. Pete Connet (Alt.)

Southport
Mr. Paul D. Fisher
Mr. James F. Powell III
Mr. Kerry McDuffie

Tarboro
Mayor Rick C. Page
Mr. M. Alan Thornton
Mr. Robert L. Harrison

Wake Forest
Mayor Vivian A. Jones
Mr. Roe O'Donnell

Washington
Mr. Doug Mercer
Mr. Keith Hardt
Mr. Bobby E. Roberson

Wilson
Mr. Donald I. Evans
Mr. Dathan C. Shows
Mr. Grant W. Goings



NCEMPA Participants

City	Revenues (000s)	Customers	Ownership %
Apex	\$ 28,973	16,154	0.7056
Ayden	12,853	3,881	1.1340
Belhaven	2,741	1,145	0.4090
Benson	4,465	1,609	0.5773
Clayton	12,668	5,747	0.7448
Edenton	12,290	4,162	1.5961
Elizabeth City	36,763	11,987	4.2510
Farmville	6,630	2,912	1.2901
Fremont	1,726	803	0.3062
Greenville	195,566	65,326	16.1343
Hamilton	424	254	0.0783
Hertford	2,958	1,160	0.4124
Hobgood	531	278	0.0913
Hookerton	792	419	0.1550
Kinston	54,265	11,645	8.6678
La Grange	3,576	1,482	0.5014
Laurinburg	16,740	5,588	2.2675
Louisburg	7,548	1,958	0.8577
Lumberton	31,750	12,237	5.1568
New Bern	61,205	21,859	6.3676
Pikeville	1,324	513	0.2046

North Carolina Eastern
Municipal Power Agency
was formed in 1976 and
includes 32 Members in
eastern North Carolina.

City	Revenues (000s)	Customers	Ownership %
Red Springs	\$ 5,255	1,692	0.5798
Robersonville	2,558	1,035	0.5066
Rocky Mount	90,360	27,276	16.0260
Scotland Neck	3,468	1,480	0.5762
Selma	7,710	2,741	0.8102
Smithfield	18,661	4,498	2.0056
Southport	6,736	2,761	0.7139
Tarboro	27,819	6,050	4.7427
Wake Forest	17,072	6,734	0.7262
Washington	36,215	13,441	5.8920
Wilson	140,320	33,813	15.5120

Source: 2014 EIA-861 Data

****Note:** Member ownership percentages from January through July. Debt Service Contract Member share percentages from August through December.

2015 NCEMPA Operational Performance

NCEMPA Energy and Demand*

Years ending on December 31	2015	2014	All Time Peak
Energy (MWh)	7,510,446	7,480,730	7,735,512 (2010)
Non-coincident Peak (MW)	1,525 (June)	1,458 (July)	1,632 (August 2007)
On-Peak Demand (MW)	1,360 (July)	1,333 (July)	1,445 (August 2007)
Average On-Peak Capacity Factor	78%	78%	

* Billing Point Level including SEPA and Distributed Generation

(1) The ratio of the average operating output of a power generating unit to the capacity rating during a specified period of time. Capacity factors include both planned and unplanned outages.

(2) The time a power generating unit is capable of producing energy, regardless of its capacity level. Availability factors include both planned and unplanned outages.

(3) The ratio of net maximum generation that could be provided after all types of outages and deratings are taken into account. It measures the percent of maximum generation over time.

NCEMPA Nuclear Plant Status

Unit	Capacity Factor% ⁽¹⁾	Availability Factor% ⁽²⁾
Brunswick Unit 1	102.0	100.00
Brunswick Unit 2	80.8	81.5
Shearon Harris	80.3	81.0

NCEMPA Fossil Plant Status

Unit	Capacity Factor% ⁽¹⁾	Equivalent Availability% ⁽³⁾
Mayo Unit 1	55.5	86.6
Roxboro Unit 4	52.3	75.1

Nuclear Refueling

- » Brunswick Unit 2 completed a 43-day refueling outage beginning on February 21, 2015, and ending on April 5, 2015
- » Harris Unit 1 completed a 43-day refueling outage beginning on April 2, 2015, and ending on May 15, 2015

Plant Information

NCEMPA’s joint ownership in four power plants ended with the asset sale between Duke Energy Progress (DEP) and NCEMPA that was effective August 1, 2015. These jointly owned plants include the Roxboro Power Plant, the Mayo Power Plant, the Brunswick Nuclear Plant and the Shearon Harris Nuclear Plant.

The Roxboro Power Plant, consisting of four units, began operation in 1966 and ranks as one of the largest power plants in the United States. Mayo, a single unit power plant, is located near Roxboro and began commercial operation in 1983. As part of the

fleet modernization plan, DEP and NCEMPA have invested more than a billion dollars in technology to reduce emissions dramatically at both plants in Person County and will continue to operate these coal-fired facilities for the foreseeable future.

Roxboro Unit 4 and Mayo Unit 1, our jointly owned coal-fired power plants, concluded the ownership period in 2015 with commendable performance statistics. Both facilities continue to benefit from the implementation of emissions technologies from 2007 through 2014. Roxboro Unit 4 achieved a Capacity Factor of 52.3 percent and Net Generation of over 1.9 million MWh during the joint ownership period in 2015. The Mayo Plant ended the joint ownership period in 2015 with a Net Generation of 2.1 million MWh and a Capacity Factor of 55.5 percent.

The Brunswick Nuclear Plant, located just north of Southport, N.C., houses two boiling water reactors. It was the first nuclear power plant built in North Carolina, beginning

operation in 1975, with an additional unit beginning operation in 1977. In the joint ownership period in 2015, the Brunswick Units had combined generation of over 8.5 million MWh. Brunswick Unit 1 concluded the joint ownership period of 2015 with a Capacity Factor of 102.0 percent. Brunswick Unit 2 completed a refueling outage in the Spring of 2015 and concluded the joint ownership period of 2015 with a Capacity Factor of 80.8 percent.

The Shearon Harris Nuclear Plant began commercial operation in 1987. During the ownership period of 2015, the Shearon Harris Plant completed a refueling outage and attained a Capacity Factor of 80.3 percent and achieved a net generation output of 3.8 million MWh.

Power Supply Overview

For the first seven months of 2015, NCEMPA supplied the All-Requirements Power Supply for its Participants through Initial Project and Supplemental Resources and secured transmission service for the Participants on the DEP and Dominion transmission systems.

Initial Project

The initial project included undivided ownership interests acquired from DEP of:

- » 18.33 percent in each of the nuclear-fueled Brunswick Units 1 and 2
- » 12.94 percent in the coal-fired Roxboro Unit 4
- » 16.17 percent in the coal-fired Mayo Unit 1
- » 16.17 percent in the nuclear-fueled Shearon Harris Unit 1

Total ownership in both coal and nuclear resources accounted for 700 MW of capacity.

Supplemental Agreements

For the first seven months of 2015, NCEMPA purchased supplemental capacity and energy from DEP, with the current agreements extending through 2031. This includes all resource needs in excess of the NCEMPA jointly owned generation assets.

Asset Sale

DEP purchased the NCEMPA generation assets effective August 1, 2015, under the Asset Purchase Agreement for \$1.2B. Following the sale of the plant assets, NCEMPA purchases both capacity and energy from DEP under a Full Requirements Power Purchase Agreement. This agreement allows the NCEMPA Members to receive unlimited capacity and energy for the term of the agreement. Coincident Peak pricing is maintained under the new agreement which allows NCEMPA Members and their customers to benefit from over 350 MW of demand-side control. In addition, NCEMPA completed the installation of 20 MW of distributed generation in 2015. The combination of the full requirements power purchase agreements and transmission service provides NCEMPA a long-term power supply with the highest available reliability and delivery assurance and a stable cost structure to support and enhance the Members' rate, energy-efficiency and demand-side management programs.

NCEMPA now supplies the full capacity and energy requirements for its 32 Members under the Full Requirements Power Sales Agreements, effective August 1, 2015. The



asset sale resulted in a significant reduction in wholesale power costs to the Members.

Load Management

NCEMPA staff and Members again successfully controlled loads during each month's peak billing period in 2015. This success translated into estimated power cost savings of nearly \$57.7 million throughout 2015.

NCEMPAs recommended load management is an average of eight hours per month, during approximately three days each month. NCEMPA Members and their customers shed a monthly average of over 297 MW (estimated), with 325 MW shed during the maximum peak hour. Load Side Generation is an integral part of this load shedding process with over 206 MW of load side generation noticed as of December 31, 2015.

During 2015 NCEMPA was allowed to run 18 MW of new Distributed Generation to provide savings in supplemental capacity, supplemental energy and transmission costs; this resulted in \$2,878,600 in Distributed Generation credits to NCEMPA Members.

NCEMPA and Member staff continued to develop improved systems and communication alternatives for load management operations. NCEMPA owns and maintains equipment at two radio stations in North Carolina to control load management equipment across eastern North Carolina. In addition, load management communications utilizes an e-mail/pager system to advise Members of load management recommendations, peaks and other information. The 32 NCEMPA cities use almost 500 pagers, emails, cell phones and two-way paging devices. NCEMPA is also reviewing the feasibility of

using two-way communication switches and smart grid technology for residential load management operations. New substation construction, expansions and delivery facility planning were in process or completed for Clayton and Rocky Mount.

Transmission Agreements

NCEMPA obtains transmission service for capacity and energy under transmission and delivery contracts with DEP and Dominion. NCEMPA Members are assured of facilities and delivery under these network service agreements.

Wholesale Rates

In conjunction with the asset sale, NCEMPA implemented Full Requirements Rate Schedule (FR-1) which resulted in an average wholesale power cost reduction of approximately 17 percent. Additionally, certain Riders were modified or adjusted in accordance with the contract changes and changes in the wholesale power purchase agreements.

Retail Rate Assistance and Billing Services

The NCEMPA Retail Billing Program serves 25 Members in gathering interval meter data for 319 commercial and industrial customers. NCEMPA continues to utilize and maintain Itron MV-90xi software, ensuring the ongoing quality and level of support provided through the Retail Billing Program.

NCEMPA staff remotely reads each meter, processes meter data and provides power billing information to the Members. Custom reports and graphs are provided electronically within days of month-end. Retail customers are provided an array

of detailed data, helping to develop and maximize their energy savings and load management programs.

Comprehensive retail rate support is provided to Members throughout the year, including competitive rate model analyses, innovative rate recommendations, assistance with complex billing error analysis and resolution, proposals for generation and demand-side management recommendations and review of power supply costs. Technical education is also delivered for improving customer service among municipal support staff, and assistance is provided with preparation of public power cost proposals for load growth opportunities.

In 2015, members were provided with options and direct assistance with meeting rate making objectives following the July 2015 NCEMPA asset sale. By the close of 2015, 29 members had engaged in rate study projects to facilitate a plan for sharing asset sale savings with their customers. ElectriCities provided assistance with a five-year load forecast, power cost projections and customer billing data.

Federal Regulations

Climate Change Issues

Congress has refrained from enacting legislation to reduce emissions of greenhouse gases, but this does not mean electric utilities are not subject to regulation that could require additional capital outlays.

In place of Congressional action, electric utilities are increasingly subject to more stringent regulatory environmental compliance requirements emanating from the United States Environmental Protection

Agency (EPA). The EPA has finalized rules to govern the regulation of greenhouse gas (GHG) emissions from new, modified and existing electric utility fossil-fueled power plants.

With respect to existing electric generating units, the EPA announced the Clean Power Plan on August 3, 2015. The Clean Power Plan provides a regulatory framework that is intended to reduce carbon dioxide emissions from power plants 32 percent below 2005 levels by 2030. However, on February 9, 2016, the United States Supreme Court stayed implementation of the Clean Power Plan pending judicial review. The Court's decision was not on the merits of the rule.

Because the ultimate outcome of the judicial review of the Clean Power Plan is uncertain, Power Agency staff cannot predict what effects the Clean Power Plan may have on the business operations and financial condition of the Power Agency or the Participants at this time.

Clean Air

The EPA has issued a variety of rules over the years, including the Clean Air Interstate Rule (CAIR), the Clean Air Mercury Rule (CAMR), the Clean Air Visibility Rule (CAVR) and the Mercury and Air Toxics Standards (MATS). MATS, finalized in 2011, established emissions limits and mercury and other pollutants from power plants. In July 2011, the EPA issued the Cross-State Air Pollution Rule (CSAPR) to reduce Nitrous Oxide (NOX) and Sulfur Dioxide (SO₂) emission in 27 Eastern states. After several legal challenges, in April 2014, the U.S. Supreme Court issued an opinion which reversed a previous District of Columbia Circuit Court

of Appeals decision which had vacated CSAPR. Thus, CSAPR became effective January 1, 2015, and has replaced CAIR. NCEMPA staff will continue to monitor federal legislation regarding clean air initiatives. As a full requirements wholesale customer of DEP, the full impact at this time on NCEMPA for clean air compliance are minimal.

Coal Ash

Coal combustion results in two forms of ash: fly ash (finer material) and bottom ash (coarser material). This ash may be stored either “dry” in designated landfills or “wet” in ponds (ash basins). In August 2014, the North Carolina State Legislature approved Senate Bill 729 - The Coal Ash Management Act of 2014. The Coal Ash Management Act, which became law in September 2014, requires that all electric generating facilities in North Carolina shall convert to the “dry” disposal method for: fly ash by December 31, 2018, and bottom ash by December 31, 2019, or in either case, if not, the facility shall be retired. In addition, among other things, the Coal Ash Management Act directed the North Carolina Department of Environmental Quality to classify ash basins in North Carolina according to risk level by the end of 2015. This risk classification was completed and dictates the time by which the ash basins must be closed, as well as the manner in which they may be closed. Ash basins in the two highest risk classifications will have to be excavated and the ash relocated to lined landfills or recycled.

In addition, in December 2014, the EPA finalized a rule on coal combustion residuals (CCRs or coal ash) generated by electric utilities. The rule, among other things,

establishes minimum federal standards for the disposal of CCRs or coal ash in both existing and new landfills and surface impoundments. The EPA indicates that it will work closely with states on implementation issues, but that states are not required to adopt these regulations, and in fact the EPA cannot enforce the requirements of this rule. This rule is not expected to have any incremental effect on the NCEMPA operations over and above what may arise from the Coal Ash Management Act.

During 2015, Duke Energy Progress continued projects to move coal ash from several of its plants into specially designed lined landfills. The ultimate financial impact to NCEMPA as a full requirements wholesale customer of DEP cannot be determined at this time.

Spent Nuclear Fuel

With regard to spent nuclear fuel, the sale of the nuclear assets to DEP effective August 1, 2015, transferred ownership of spent nuclear fuel to DEP. Litigation is still pending against the Department of Energy for reimbursement of costs associated with the storage of nuclear fuel at the nuclear plants as a result of DOE not providing a repository for spent nuclear fuel. Contract provisions allow NCEMPA to recover their allocation of these costs during the time period that NCEMPA was a joint owner in the Brunswick and Harris Nuclear Plants. Staff cannot predict when this litigation will be settled with DOE.

Reciprocating Internal Combustion Engines

EPA rules establishing national emissions standards for hazardous air pollutants for existing compression ignition reciprocating

internal combustion engines (RICE) went into effect May 3, 2014. These rules did affect some Participant-owned distributed generation.

North American Electric Reliability Corporation Compliance

The Energy Policy Act of 2005 directed the Federal Energy Regulatory Commission (FERC) to develop mandatory electric reliability standards and a process for enforcing those standards. Subsequently, FERC Order 672 certified the North American Electric Reliability Corporation (NERC) as the Electric Reliability Organization (ERO) responsible for the development and enforcement of the standards. SERC Reliability Corporation (SERC) and ReliabilityFirst Corporation (RFC) are the NERC regional entities that oversee compliance with the standards in the southeastern region and mid-Atlantic regions of the United States. Order 672 also directed all owners, operators and users of the bulk power system to register with the ERO and be subject to the reliability standards. As a result, on June 18, 2007, NERC Reliability Standards became mandatory for the municipal electric systems of some cities that are Members of NCEMPA.

NCEMPA, its Members, and other entities that are subject to the reliability standards delegated their compliance responsibilities to ElectriCities. ElectriCities is registered with NERC as a Joint Registration Organization (JRO) on behalf of NCEMPA's Members and other members of the JRO that would otherwise be required to register with NERC individually, based on NERC's criteria for registration, in some or all of the following functional categories of: Load-Serving Entity,

Resource Planner, Purchasing-Selling Entity and Distribution Provider. ElectriCities staff manages an Internal Reliability Compliance Program (IRCP) to ensure that the members of the JRO remain in compliance with all applicable NERC, SERC and RFC reliability standards and any additional requirements. As members of the JRO, the applicable NCEMPA Members have agreed to cooperate fully with ElectriCities in the implementation of the IRCP and to perform any associated tasks to ensure continued compliance with the reliability standards.

Cyber Security

Cyber security threats to the electric sector are garnering increased attention as foreign operatives and others seek ways to disrupt the economy and the nation. NCEMPA, both directly and through its contracted plant operators, participates in and remains in compliance with cyber security standards developed by NERC. NERC is the electric reliability organization (ERO) certified by FERC to establish and enforce reliability standards for the bulk power system. The FERC monitors and approves all NERC standards and has the authority to direct the NERC to develop new standards should current standards be deficient.

On January 13, 2015, President Obama signed an Executive Order designed to increase the US Government's communication among and between the government and owners of critical infrastructure assets. This Executive Order builds on Order 13636, signed in 2013, which was intended to increase the level of preparation for cyber threats and to facilitate industry coordination among the critical

infrastructure sectors. The electric sector is the only sector that currently has mandatory and enforceable federal cyber security standards already in place. Nonetheless, the administrative actions to direct additional information sharing between the US Government and the electric sector are considered beneficial and should serve to enhance current actions. The Congress is similarly interested in facilitating increased secure communications regarding threats to the electric grid while not imposing burdensome, redundant regulations on the industry.

North Carolina State Regulations

Renewable Energy Portfolio Standard

Under North Carolina's Renewable Energy and Energy Efficiency Portfolio Standard (REPS), NCEMPA member cities must obtain up to 10 percent of their energy through renewable energy or energy efficiency resources by 2018. NCEMPA is committed to meeting the REPS requirements in a least-cost manner, while maximizing the benefits to its member cities. Compliance with REPS can be accomplished through any combination of the following:

- » Generate bundled renewable energy using renewable facilities
- » Buy bundled renewable energy from renewable facilities
- » Buy Renewable Energy Certificates (RECs)
- » Reduce energy consumption via demand-side management or energy efficiency
- » Buy all or part of energy requirements through a wholesale contract with a supplier that complies with REPS

- » Meet the cost cap by incurring incremental costs for some or all of the above

In 2012 the general REPS requirement began, and is escalated as follows:

- » 2012 — 3 percent of prior year retail sales
- » 2015 — 6 percent of prior year retail sales
- » 2018 and beyond — 10 percent of prior year retail sales

Along with energy derived from unspecified renewable resources (General Requirement), the 2015 requirements included three “carve-out” requirements: energy derived from solar facilities, biomass energy derived from swine waste and biomass energy derived from poultry waste. NCEMPA met its solar requirement, poultry requirement and the General Requirement in 2015. However, the North Carolina Utilities Commission (NCUC) delayed the 2015 swine requirement until 2016 for all North Carolina utilities, including NCEMPA. The swine requirement was delayed because there were not enough swine biomass generators online in North Carolina to meet these statewide requirements.

To meet its future REPS requirements, NCEMPA has entered into several REC purchase agreements, including the purchase of:

- » In-state and out-of-state solar photovoltaic RECs
- » In-state and out-of-state wood waste biomass RECs
- » In-state and out-of-state poultry waste biomass RECs
- » In-state and out-of-state swine waste biomass RECs

Through these REC purchases, NCEMPA has secured its supply of RECs to meet the REPS requirements for the General Requirement, solar requirement, and poultry requirement through 2017. NCEMPA, along with the other North Carolina electric utilities, continues to solicit proposals from proposed swine waste biomass electric generating facilities to meet the swine waste requirement.

NCEMPA has been active at the NCUC, helping to shape the REPS program through filings and participation in working groups.

NCEMPA Investment and Outstanding Debt Overview

Investment Portfolio Statistics

Earnings		Income	Rate of Return
2015	\$	9,532,000	2.20%
2014		12,717,000	1.95%

Bonds Outstanding

Series	Par Amount
Series 2015 A	\$ 421,430,000
Total	\$421,430,000

Market value as of 12/31

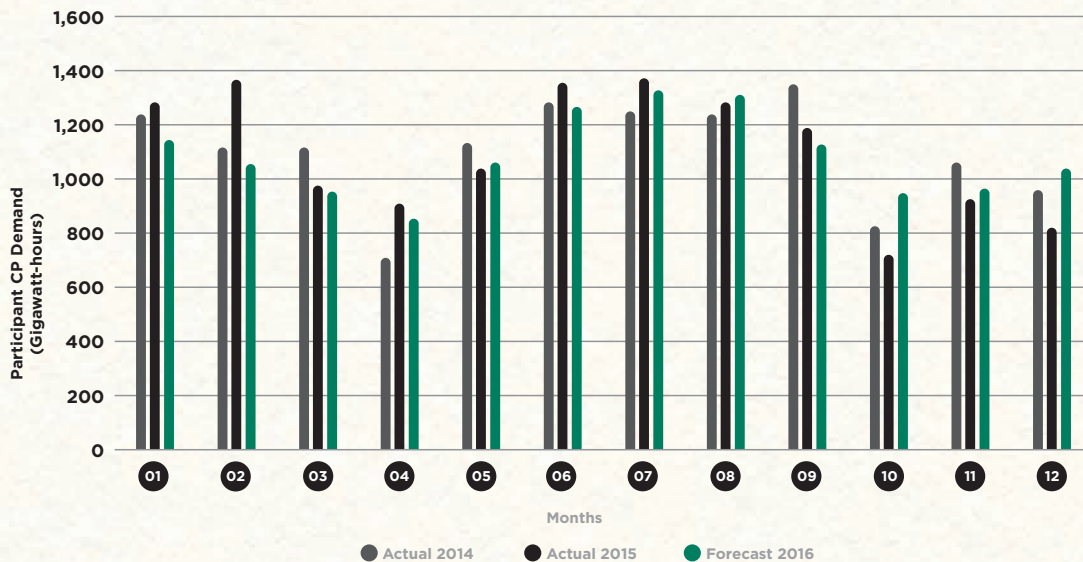
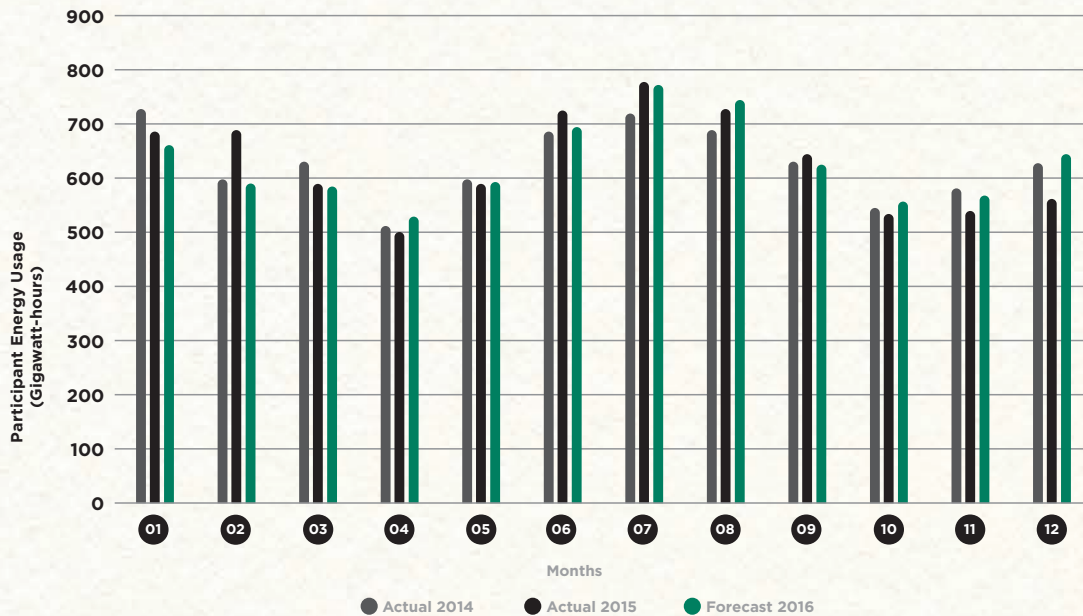
		Value	Average Maturity (yrs.)
2015	\$	149,239,000	1.2
2014		829,469,000	2.5

Debt outstanding as of 12/31

Fixed rate bonds	Balance	Weighted Avg. Interest Cost
2015	\$ 421,430,000	3.4%
2014	1,869,455,000	5.2%

Bond reconciliation

Bonds outstanding 12/31/14	\$1,869,455,000
Matured 1/2/15	147,805,000
Defeased 7/31/15	1,721,650,000
Issued 7/31/15	421,430,000
Bonds outstanding 12/31/15	421,430,000



Graphs: Billing point including SEPA; forecast year 2015 is from the December 2014 Winter Load forecast

An **EXPANDING** **FOCUS** on Safety





ElectriCities Safety & Training Specialist Craig Batchelor with City of Rock Hill linemen during a Hurt Man Rescue training session.

ElectriCities is taking its safety and training programs on the road, expanding its reach into South Carolina and Virginia.

That's good news for associate members like the Laurens (SC) Commission of Public Works, one of the first to take advantage of customized safety audits and training programs. These affordable programs help public power communities comply with OSHA's updated rules and regulations for workers performing electric power generation, transmission and distribution work.

For Mike Jolly, the director of electric utilities for Rock Hill, SC, safety is a top priority. He was impressed with ElectriCities' recent training sessions that taught the city's linemen how to safely and quickly rescue an injured lineman. OSHA requires all utilities to complete pole top and bucket rescue training each year.

ElectriCities offers more than 20 safety and career development workshops at various locations throughout the year, as well as training programs specially designed for individual communities. These programs provide valuable life-saving skills and offer linemen and meter, substation and underground technicians the expertise and training they need to advance their careers.



An Expanding Focus on Safety



City of Rock Hill Director of Utilities Mike Jolly speaking with utility workers prior to an ElectriCities led safety and training session. ElectriCities Senior Safety & Training Specialist Mark Todd and Safety & Training Specialist Craig Batechlor instructing City of Rock Hill linemen during a bucket rescue training session.

Non-Power Agency Leadership

Board of Commissioners and Alternate Commissioners as of December 31, 2015

Alternate Commissioners' names appear in smaller type

Concord

Mr. Robert Pate
Mr. Scott Chunn

Dallas

Mr. James Douglas Huffman
Mr. James M. Palenick

Enfield

Mr. Earl Harvey
First Alternate Vacant

Fayetteville PWC

Mr. Michael G. Lallier
Ms. Lynne B. Greene

Forest City

Mr. John Condrey
First Alternate Vacant

Fountain

Commissioner Vacant
First Alternate Vacant

Kings Mountain

Ms. Marilyn H. Sellers
Mr. Nick Hendricks

New River Light & Power

Mr. Edmond C. Miller
Mr. Michael O'Connor

Stantonsburg

Mr. Gary W. Davis
First Alternate Vacant

Windsor

Mayor J.F. Hoggard III
Mr. Allen Castelloe

Winterville

Mr. Tony P. Moore



Non-Power Agency Members

City	Revenues (000s)	Customers
Concord	\$ 79,304	28,618
Dallas	6,335	3,478
Enfield	3,997	1,274
Fayetteville PWC	187,608	88,760
Forest City	11,173	4,103
Fountain	579	302
Kings Mountain	12,623	4,446
Macclesfield	451	269
New River Light & Power	20,325	7,852
Pinetops	2,725	756
Stantonsburg	2,305	1,157
Walstonburg	245	129
Waynesville	8,489	3,200
Windsor	5,426	1,786
Winterville	5,549	2,835

Source: 2014 EIA-861 Data

ElectriCities Services

Economic Development

Once again this year, ElectriCities' NC Public Power communities continue to see success with industrial and retail recruitment and expansions of existing industries. ElectriCities Economic Development team markets communities domestically and internationally to attract new business

investment and new job creation for our members – whether for retail/commercial or industrial recruitment. We continue to work with national and chain accounts to strengthen their presence in our member communities. Our international program has proven to be very successful in reaching out to the foreign direct investment opportunities for our members. Our team also works closely with the Economic Development Partnership

of NC (EDPNC), the NC Department of Commerce/Rural Division, the Regional Partnerships and county developers to further the strategic load growth efforts.

NCMPA1 members added 2,882 new jobs in fiscal year 2015 with investments totaling approximately \$313,604,062. New load added to NCMPA1 was approximately 30.45 MW.

NCEMPA members added 2,434 new jobs in fiscal year 2015 with investments totaling approximately \$1,221,973,556. New load added to NCEMPA was just over 48.61 MW.

Major industrial announcements in 2015 for NC Public Power communities include:

- » Triton Glass (Albemarle) with 23 jobs and \$2.2 million investment
- » Heritage Home Group (High Point) with 300 jobs
- » Lanxess Inc. (Gastonia) expansion with \$15 million investment
- » Glenmark Pharmaceuticals (Monroe) with 41 jobs and \$17 million investment
- » Duralee Fabrics (Morganton) expansion with 41 jobs
- » Huesker Inc. (Shelby) expansion with 20 jobs and \$8.5 million investment
- » Pactiv LLC (Kinston) expansion with 59 jobs and \$24 million investment
- » Jimbos Jumbos (Edenton) expansion with 78 jobs and \$30 million investment
- » Asbury Carbons Inc. (Lumberton) with 25 jobs and \$8 million investment
- » AR Textiles Ltd (Robersonville) with 38 jobs and \$12 million investment
- » Associated Materials (Kinston) expansion with 72 jobs and \$4.5 million investment
- » Mayne Pharma (Greenville) expansion with 110 jobs and \$65 million investment

Safety and Training

The ElectriCities Safety and Training staff is responsible for providing safety training and professional support to members' electric system personnel. We provide an array of services such as training schools and workshops, on-site safety audits and training, accident investigations and administration of professional development tracks. ElectriCities Safety staff also informs members of new safety legislation and best practices to reduce workplace accidents and lost employee time. The team stays up-to-date with the latest state and federal rules and regulations to ensure public power line crews have the best possible information and techniques to keep line crews safe.

The ElectriCities Safety and Training Team, a member-based group, ensures that ElectriCities Safety and Training schools align with the needs and concerns of ElectriCities members. The team met six times in 2015 to plan new activities, review schools' expenses and revenues, and monitor existing activities.

In 2015, Safety staff performed 18 on-site audits and 447 safety consultations. In addition, the Safety and Training team conducted and attended 55 safety meeting presentations throughout the year.

ElectriCities recognizes members for safe work habits in annual safety awards presented during the North Carolina Association of Municipal Electric Systems (NCAMES) Annual Meeting. During the 2015 meeting, 54 cities and towns were recognized for achieving no lost workday accidents during 2014.

ElectriCities Safety and Training also maintains four Apprenticeship Career development programs for municipal



employees beginning their career in the electrical industry.

- » Lineman Career Development Program
- » Meter Technician Career Development Program
- » Substation Career Development Program
- » Underground Career Development Program

Safety and Training has two full-time trainers that assist in the instruction of the Lineman Career Development Apprenticeship Program for our members. The Lineman Career Development Program provides specialized training for employees who work on high voltage overhead power lines. With a renewed effort to involve more line workers in the Career Development Programs, we now have 230 students enrolled in the lineman program for 2016.

The Safety and Training staff also facilitates many training opportunities throughout the year. ElectriCities partners with Nash Community College to offer a two-year associate degree in Electric Power Lineman Technology for line worker employees who wish to participate and attend the ElectriCities Safety Schools. ElectriCities Staff work with Nash Community College located in Rocky Mount, N.C., to provide classrooms with state-of-the-art audio and visual training aids as well as outside training grounds for hands-on training. In 2015, ElectriCities provided 21 schools and workshops (as shown below) to accomplish these goals. These schools range from 3 days to a week-long each and are held on topics such as:

- » Basic Meter School
- » Advanced Meter School

- » Climbing School
- » Basic Lineman School
- » Intermediate Lineman School
- » Advanced Lineman School
- » Basic Underground School
- » Advanced Underground School
- » Distribution Regulator School
- » Substation School
- » Distribution Transformer School
- » Troubleshooting School
- » Leadership Skills Workshop
- » Line Clearing/Tree Trimming School
- » NESC Overview and Overhead Distribution Systems Training School
- » Train the Trainer Workshop
- » Trenching Competent Person and Confined Space Workshop
- » Protective Grounding Workshop
- » On-Site Training – Power Monitors Information
- » OSHA Workshop

Government Relations

The ElectriCities Government Relations team is dedicated to protecting the interests of public power communities in North Carolina. The Government Relations team actively participates in the legislative process and strives to provide member cities with pertinent information and an outlet to voice their concerns. The team's lobbying efforts work closely with our member cities to ensure the successful future of NC Public Power communities.

The Legislative Steering Committee, a committee of the ElectriCities Board of Directors, is actively involved in shaping the organization's legislative agenda. The primary focus of the Legislative Steering Committee is to promote public power and protect public

power communities from any detrimental legislation on many issues, including electric territorial rights, pole attachment rates, terms and conditions, low-income customer assistance and inter-governmental relations.

During the 2015 legislative session, the Government Relations team helped secure the passage of Senate Bill 305, given the short title “NCEMPA Asset Sale”, that provided the necessary legislation that allowed NCEMPA to complete the sale of its generating assets to Duke Energy Progress. In addition, the team monitored other issues including proposed changes to the Renewable Energy Portfolio Standards (REPS) Compliance statute, proposals that would allow unregulated entities to sell electricity to retail customers and changes to the Coal Ash Management Act of 2014.

The federal legislative agenda includes support for preserving tax-exempt financing, sensible and workable environmental and reliability legislation and regulation and other legislation that affects public power collectively. The Government Relations team works with national groups such as the American Public Power Association and the Large Public Power Council to advance the interests of North Carolina Public Power communities.

Industrial/Commercial Services and Programs

ElectriCities staff and city representatives continue to focus on retaining large industrial accounts, commercial accounts and other key accounts. Power Agency Participants recognize the important roles these key accounts play in their cities and towns. The customer retention program includes innovative rate structures, customer education

and energy solutions provided through ElectriCities Energy Solutions Partner (ESP) program. For example, new on-peak rates and customer generation rate riders allow customers to reduce demand for energy during periods of high power costs. Commercial and industrial customers have access to day-long seminars and shorter webinars on subjects ranging from energy management and sub-metering to power restoration. The ESP program connects workshop attendees and energy audit recipients with their local energy provider and an alliance partner. Programs offered and implemented with key account customers include back-up generation, energy-efficient lighting, power quality surveys, HVAC solutions and overall energy management systems.

A major focus of our Key Account Management program is providing facility solutions to commercial and industrial customers to help them improve their energy efficiency and lower overall energy costs. During 2015, the ElectriCities Key Account team performed more than 70 energy assessments for commercial and industrial customers. These energy assessments provide customers with a tailored report that summarizes overall electric costs, a monthly detail of energy usage, and a list of specific recommendations. The Key Account Management team also assists customers with detailed project design and analysis during implementation, as well as follow-up measurement and monitoring of the results. In addition, the Key Account Management team performed a number of power quality assessments which provided commercial and industrial customers with information designed to improve reliability at their facilities.



During 2015, nearly 70 NCMPA1 commercial and industrial customers received rebates for implementing energy efficient lighting retrofit projects which will result in measureable demand reduction for NCMPA1 Participants.

Residential Energy Education and Weatherization Assistance Services

ElectriCities offers programs and services to help members address the needs of residential customers. Active residential programs for 2015 included Energy Depot for Homes; a set of online, interactive marketing and customer service applications; residential in-home energy survey service; distribution of energy efficiency kits; and E-Tracker, an energy education program for member high schools.

Energy Depot applications include the following: Personal Energy Profile, an online, do-it-yourself home energy audit; Energy Calculator, allowing customers to quickly calculate the electric energy use and costs for the full range of home energy systems and appliances; and Energy Library, which offers a wide selection of fact sheets that address home energy systems, appliances and products. Customers of NC Public Power communities made over 10,000 visits to the Energy Depot website in 2015.

The Residential Energy Survey Service team provides free in-home energy surveys to residential customers and training and support for ElectriCities members' staff. New in 2015, surveys are now completed on an iPad, enabling pictures to be included in reports that can be emailed to the customer. 574 energy surveys were conducted in 2015 for residential customers. The program also promotes energy education and awareness

through local workshops, seminars and community-based meetings. 19 energy education and assistance workshops were provided to retail customers during 2015.

The Energy Efficiency Kit is designed to help residential customers understand energy usage and its effect on energy bills. The kits contain: four compact fluorescent lamps, a low-flow 2.5 gallons/minute showerhead, spray foam sealant, stick on and refrigerator magnet thermostats and a HVAC filter whistle. In 2015, more than 3,000 Energy Efficiency Kits were distributed by ElectriCities members.

Residential Energy Survey Service team continued to market North Carolina's Weatherization Assistance Program (WAP) throughout NC Public Power communities during 2015. The WAP is administered through the NC Energy Office, utilizing a network of local weatherization agencies serving all counties in the state. Residential Energy Survey Service team efforts included referring energy survey customers that might be candidates to their local weatherization agency. The Residential Energy Survey Service team also participates on the State's Weatherization Team. These marketing efforts resulted in 255 customer referrals to the WAP during 2015.

E-Tracker, funded initially by a grant from the American Public Power Association (APPA), was continued as a service in 2015 and was delivered to high schools in four member communities: Monroe, Rocky Mount, Wilson and Cherryville. E-Tracker teaches high school students about the relationship between daily energy use and degree days, a daily weather index. Students were instructed to apply the scientific method to

solve this question: how does the weather affect my utility bill? In the process, students were instructed on how to apply statistics, including linear regression and correlation coefficients, to learn about this relationship that affects every utility customer.

Strategic Communications

ElectriCities Strategic Communications functions as an in-house marketing, public relations and advertising group focused on promoting the value of ElectriCities, NCEMPA, NCMPA1 and the communications goals of our members. Strategic Communications staff is available to all members to provide consulting and design service for local projects. The consulting, design and communications planning services are all provided free of charge to ElectriCities members.

The Strategic Communications team maintains a supply of customer communications pieces, including bill inserts and videos on topics such as energy efficiency and storm preparation. The bill insert service is one of the most popular offerings of the department, with nearly 650,000 bill inserts distributed in 2015. Projects were completed for NCMPA1 and NCEMPA members.

The department also produces several newsletters: *Hometown Connection*, a newsletter that communicates the good news of public power; *Developments*, an economic development-focused quarterly communication promoting sites in North Carolina; and *Currents*, an e-newsletter that provides updates specifically on customer communication topics.

The Strategic Communications team plans an awareness/celebration campaign each year

for Public Power Week. The campaign focus is always based on current electric utility topics and interest points. Public Power Week provides a designated time for public power communities to celebrate the advantages that locally owned and operated electric utilities provide. In 2015, the Public Power Week theme was *People Power: Standing Together. Standing Strong*, focusing on NC Public Power's excellent reliability and knowledgeable staff who provides excellent service to customers.

The Strategic Communications team serves as the marketing arm for the Economic Development team. The department produces marketing materials, advertisements, trade show materials and displays to enhance ElectriCities overall economic development activities. We were pleased to be presented with several communications awards in 2015, including awards from the Triangle Advertising Federation, International Economic Development Council (IEDC) and the Southern Economic Development Council (SEDC.)

Utility Operations Services

A variety of utility operations services are provided by ElectriCities Member Services department. These programs are designed to provide support for members' electric distribution systems and customer service programs.

Distribution systems support programs include: the Operations Standards Team, statewide service contracts, joint purchasing, the Emergency Assistance Program, assistance with APPA's Reliable Public Power Provider (RP3) program, assistance with APPA's eReliability Tracker program, reliability tracking and hosting an online forum for utility directors to share best practices. In



2015, an online material safety data sheet (MSDS) management program was offered to members. This program will be offered to all members for a fee in 2016.

The Operations Standards Team is a member-based team that is comprised of utility directors with the mission of developing safe, efficient work practices. The team produces the “Guidelines for Municipal Electric System Construction”, which includes overhead construction drawings, underground construction drawings and procedures and metering guidelines and procedures. The Operations Standards Team continued working on identifying and sharing best practices among the members. In addition, the team reviewed new technologies to offer their ideas on the usefulness with their systems.

The Member Services team administers the Statewide Service Contracts programs to help public power communities collectively take advantage of volume pricing discounts. Current contracts are in place for: tree trimming, aerial device testing, meter testing, infrared scanning, in-ground pole testing, substation maintenance, oil testing and PCB audit assistance.

In addition to Statewide Service Contracts, Member Services manages the joint purchasing of utility equipment. In 2015, LED street lights were added to utility poles as items that were purchased jointly for ElectriCities members.

The Emergency Assistance Program (EAP) provides support to members during emergency restorations. All the members participate in this program and willingly provide support to each other during restoration efforts. Member Services staff keeps updated mutual aid agreements and contract information to allow quick response

and dispatch after storms. The members prepared for several storms in 2015 but fortunately no wide spread damage occurred.

The Member Services team participates in state and regional planning teams, such as the Southeast Public Power Disaster Response Group and APPA’s Mutual Aid Working Group. ElectriCities participated in the development of APPA’s Mutual Aid Playbook which provides a regional and national response plan to major events affecting the electric systems. Staff also began implementing Everbridge, a more robust emergency communication system, to be better prepared for future events.

The RP3 program, APPA’s initiative to promote and recognize excellent public power utilities, is supported by the Member Services department. The Member Services team assists members by promoting the program, providing information necessary to complete applications, answering questions and reviewing applications. The program has been very effective and has resulted in North Carolina having 22 current RP3 designees, the most of any state in the country.

Proving that “public power is more reliable” became a mission led by the Member Services team. Members participated in the program by providing reliability data from their distribution systems. The data is collected each year, and in 2014 it represented 90 percent of the total load for the public power communities in North Carolina. Using IEEE reporting standards, the data collected was compared directly to information submitted to the North Carolina Utilities Commission by investor-owned utilities, proving that NC Public Power is more reliable. For 2014, NC Public Power

had a CAIDI of 59.38 minutes and a SAIFI of 0.82 outages. This means that the average restoration time for NC Public Power was 59.38 minutes, and each NC Public Power customer had, on average, 0.82 outages throughout the year of 2014. For comparison purposes, Duke Energy Progress had a CAIDI of 101.64 minutes and a SAIFI of 1.22 outages in 2014, while Duke Energy Carolinas had a CAIDI of 146.81 minutes and a SAIFI of 0.94 outages in 2014. The 2015 reliability data will be collected mid-year 2016.

The Member Services team also offers free subscriptions to APPA's eReliability Tracker to help members track outages and obtain their reliability indices. In 2014, 16 ElectriCities members were using the eReliability Tracker. Having a reliable power supply translates into a direct economic benefit to the communities.

The Member Services team also provides an array of services that promote customer service and business operation excellence. Examples include webinars on customer service practices and emerging issues, hosting forums for Customer Service Managers, facilitating online forums for discussions among peers, offering customer service training workshops and providing business operations and regulatory assistance.

Guidelines for customer service policies are also kept by Member Services staff and are available to all members as a reference manual. Customized customer service training is available to members as needed.

The Member Services team also coordinates regional meetings and the Annual Conference to help keep members informed of the issues regarding public power in North Carolina.

AMI

In 2012, ElectriCities released a smart grid Request for Proposals (RFP) on behalf of the members to evaluate various smart grid technologies. The evaluation team consisted of many ElectriCities staff and members' staff. In 2014, the team decided that Nexgrid, LLC was the best solution for ElectriCities to partner with, and ElectriCities signed a Master Services Agreement (MSA) with them. Through this MSA, ElectriCities was able to negotiate a discount on all Nexgrid products for members, and can also leverage joint purchases for even greater volume discounts.

By the end of 2015, ElectriCities had over 25 members working on a smart grid pilot project or full deployment. Multiple vendors were represented in these projects, with 14 of the projects using Nexgrid. Of the 14 projects using Nexgrid, two members were in the full deployment process, and two other members were working on a full deployment of Nexgrid two-way load management switches.

ElectriCities staff continues to offer services for smart grid such as education, business case assistance, council presentations, project management, hosting and support. In 2015, ElectriCities hosted a Smart Grid users group, and plans to host another one in early 2016.

If your community is interested in smart grid technologies, please contact ElectriCities to see how we can help.

ElectriCities Annual Conference

ElectriCities 50th Annual Conference was held August 6-8, 2015, at the Marriott Grande Dunes in Myrtle Beach, SC. Members came together to learn about news and issues affecting public power communities and celebrate 50 years



of working together for the benefit of their communities. The conference provides one of the best forums of its kind for public power leaders to gather, network and discuss specific issues related to public power. In 2015, the conference had over 400 attendees.

The conference featured: Sue Kelly, President and CEO, American Public Power Association; a 50th anniversary panel that spoke about the benefits of working together through the years; Chris Kuehl, from Armada Executive Intelligence, who spoke about “Economic Trends”; a Smart Grid panel discussion, and; Chad Porter provided a motivational speech to close the general session. Steve Gilliland was brought back by popular demand to provide the key note speech at the banquet.

The conference program featured several breakout sessions. These topics included: Economic Development; Information Technology and Disaster Recovery; Federal and State Legislative Update; Customer Service; Personnel Trends and Challenges, and; Lineman Career Development.

The 2016 Annual Conference will be held in Concord, N.C., and will focus on utility operations, economic development, customer service and best practice sharing.

Customer Information and Business Program

ElectriCities IT Department currently hosts the NorthStar Customer Information System (CIS) for six members and provides a variety of value-added professional services. The software is provided by NorthStar Utilities Solution and was selected by a team of members for its robust functionality and ability to support innovative rate structures

and integrate well with other utility systems such as financials, GIS, work order management and AMI. NorthStar provides meter inventory, service orders, billing, credit, collections, call management, executive reporting and web bill presentment and payment. The NorthStar system is able to bill electric, water, sewer, refuse/garbage, gas and other miscellaneous city services. It is used by utilities throughout North America in AMI and deregulated environments.

The members currently using the hosted NorthStar CIS are Albemarle, Benson, Cherryville, Cornelius, Huntersville and Morganton. In 2015 these members managed accounts for 33,100 electric customers, billing over \$501 million in municipal revenues. Shelby, Laurinburg and Concord also use NorthStar CIS and are part of the ElectriCities and Regional User Groups. The Town of Benson converted to the hosted NorthStar solution early in 2015 with ElectriCities providing implementation services including project management, data conversion, configuration, testing and training. They are currently assisting the town in converting to AMI using electronic readings and testing MultiSpeak two-way integration functions to synchronize data real time between the CIS and AMI systems.

In 2015, ElectriCities began evaluating vendors to offer a second hosted customer information system geared towards small-to medium-sized municipalities. In addition, ElectriCities evaluated vendors to offer a hosted financial system for both existing and new CIS members. A team comprised of internal and eight member municipalities evaluated products from vendors focusing on the municipal market. Through product demonstrations, reference checks and team

discussions, the group reached consensus on one vendor. ElectriCities is in final negotiations with an expectation to make the product available in the second quarter of 2016. Several of the members are planning to initiate implementations in 2016-17.

All CIS and financial system software is hosted by ElectriCities, providing high availability, secure infrastructure and technical support allowing members to focus on managing their customer service operations. The IT Department maintains the production, test, backup and disaster recovery environments. Application-level support is offered to the members providing faster response than typical with vendor help desks. The close working relationship with the members also enables the IT Department to recommend business process improvements and opportunities to better utilize the software. In addition to the help desk function, the staff provides project management for software upgrades, patches and enhancements. In 2015 this included assisting Huntersville, Cornelius and Albemarle with IVR and online customer portal implementations expanding customer payment channels and increasing operational efficiencies. The staff served as a liaison with the vendor and assisted in testing and training supporting the members in deploying fully functional products that enhance their customer service operations.

Any city interested in the hosted CIS and/or financial system offerings can learn more through onsite demonstrations facilitated by ElectriCities IT staff. In addition to the comprehensive functionality available in

these business systems, there are financial benefits through shared costs with other members, reliability and redundancy available through the shared infrastructure, and staff assistance for project management, training and ongoing support, making the hosted approach a comprehensive value-added service for members.

Huntersville/Cornelius

The Towns of Huntersville and Cornelius contract with ElectriCities to manage the operation of their electric systems. The combining of the electric operations in 1997 continues to minimize operating costs and provide value for customers of the towns. The ElectriCities team at the Huntersville/Cornelius office is involved in the local community and participates in economic development activities and recruitment.

As the total customer base continues to grow, ElectriCities continues to provide customers with bill pay options that include access to online bill pay and view billing and usage information on the department's website along with social media updates on the local Twitter accounts to keep customers informed. A new addition to bill pay has been the implementation of IVR that allows customers to pay through the phone system 24-hours a day.

The Huntersville/Cornelius combined electric operation continues to provide economies of scale to minimize operating costs, enabling both towns to maintain competitive electric rates in the region.

